Expression of Interest EOI

Part 1 – General Details

EOI ID	1142
EOI Title	Integrated management of volunteer and ratoon cotton in post-paraquat farming systems
Expected Start Date	01/02/2027
Expected End Date	30/06/2028
CRDC Pillar	1. Paddock
CRDC Theme	1.2 Adaptive Systems
CRDC Outcome	1.2.2 By 2028, a pest-suppressive farming system is established that is better able to cope with challenges (exotics, resistance, species shift) while meeting community expectations about less reliance on pesticides
Application Type	
EOI Close Date	09/12/2026

Part 2 – Expression of Interest Requirements

Project Investment:				
Year	**2026/27**	**2027/28**		**TOTAL**
Indicative budget (up to)	$200,000.00	$100,000.00		$300,000.00

Issue to be addressed and project description:

Changes to paraquat and diquat registrations have removed cotton-specific uses, including volunteer cotton control and crop desiccation. This creates an immediate need for practical, effective and legally compliant alternatives to:

- managing volunteer and ratoon cotton; and
- achieving reliable defoliation and crop termination in dryland cotton.

Options for large, established or stressed volunteer and ratoon plants are limited. Dryland crops also present particular defoliation challenges due to variable crop maturity, moisture stress, seasonal conditions, application timing and the risk of incomplete defoliation or regrowth. Increased reliance on a narrow range of herbicides, cultivation or manual control may increase resistance risk, costs, soil

disturbance, fuel use and soil-moisture loss.

CRDC is seeking proposals to identify, test and demonstrate integrated strategies for priority volunteer and ratoon cotton situations and for dryland cotton defoliation and termination. Approaches may include:

- registered or emerging herbicide options and sequences;
- mechanical or cultural control;
- optical detection and precision chipping;
- commercially available or near-market robotic technologies;
- alternative application methods that may improve coverage, operational efficiency and efficacy at compliant product rates;
- dryland defoliation and crop-termination strategies that address variable maturity, crop stress, regrowth and surviving plants; and
- integrated combinations of chemical and non-chemical tactics.

Applicants should prioritise highest-risk management situations and propose a focused program deliverable within the available budget.

Where testing involves unregistered products or uses, applicants must identify the required approvals and engage relevant registrants. Research may generate efficacy evidence to inform future permit, registration or label-extension pathways, but a complete regulatory data package is not expected.

Expected project outputs and outcomes:

The project is expected to deliver outputs including:

- a concise review and prioritisation of volunteer and ratoon cotton management and dryland defoliation gaps;
- efficacy testing of a targeted number of promising control, defoliation and crop-termination options;
- practical demonstrations under commercially relevant dryland and post-harvest conditions;
- demonstration of relevant application methods, including ground-rig, aerial and drone application where legally permitted;
- assessment of defoliation, desiccation, complete plant death, regrowth and seed-production risk;
- assessment of crop maturity, environmental and application factors affecting dryland defoliation performance;
- indicative economic, operational and scalability assessments;
- integrated weed management, resistance and stewardship considerations;
- identification of regulatory or commercial next steps for promising options;
- practical recommendations and targeted extension materials for growers and advisers; and
- a final report identifying options ready for adoption, further validation, registration or commercial development.

Expected outcomes include:

- improved grower and adviser confidence in managing volunteer cotton, ratoon cotton and dryland crop defoliation;
- demonstrated integrated strategies for priority management and crop-termination situations;
- more reliable defoliation and crop shutdown under variable dryland conditions;
- reduced reliance on any single herbicide, defoliant or control tactic;
- reduced risk from surviving, regrowing or seed-producing cotton plants; and
- clear priorities for future research, registration, commercialisation and extension.

Additional guidance:

Applicants should propose a focused, prioritised and cost-effective program. Proposals are not expected to address every management situation, chemical option or technology.

Applicants should:

- justify the priority situations and options selected;
- distinguish replicated efficacy testing from practical demonstration;
- assess complete plant death and regrowth, not visual injury alone;
- assess defoliation completeness, speed of leaf drop, desiccation, regrowth and harvest readiness where relevant;
- consider crop maturity, moisture stress, environmental conditions and application timing in dryland systems;
- compare relevant application methods based on efficacy, coverage, cost, labour, operating capacity and scalability;
- identify core and optional activities;
- use existing knowledge, sites, equipment and partnerships where possible; and
- involve growers, advisers and relevant registrants in project design and practical evaluation.

Appropriate approvals must be in place for unregistered chemical products or use patterns. Where work may support a future permit, registration or label extension, applicants should engage the relevant registrant and identify their contribution. CRDC does not expect the investment to fund a complete regulatory data package.

Technology evaluation should focus on commercially available or near-market options. Significant machinery development will only be considered where partner co-investment and a credible commercial pathway are demonstrated.

CRDC may negotiate the final scope, sequencing, milestones and budget with the successful applicant.

Part 3 – Selection Criteria

The following selection criteria will be used by the CRDC to assess the full research proposals (FRPs) received for each Expression of Interest.
The rationale of the project, how it will support CRDC's Strategic Plan and the potential impacts for the Australian cotton industry and the Australian community. This criterion will be assessed on the soundness of the proposal's understanding of the issues, and the extent to which the project outcomes will address the issues and support CRDC to achieve its measures of success.
Project methodology. This criterion will be assessed on the soundness and clarity of the proposed R&D methods to achieve project deliverables and outcomes.
The skills and capacity of the research team to undertake the project. This criterion will be assessed on the track record, technical knowledge and experience of all key personnel in the research area and the demonstrated capacity of the nominated researcher/s to provide project coordination, management, monitoring and evaluation for the timely delivery of high quality outputs.
The proposed 'Pathway to Impact'. This criterion will be assessed on the appropriateness of the proposed 'Pathway to Impact' and the demonstrated capacity of the project personnel to effectively translate research/project outcomes to on ground actions. Please include the target audience and process for extension/ communication/ commercialisation (as appropriate), as well as any collaboration partners and potential risks. Note that successful FRPs may be requested to develop specific milestones for delivery of project outcomes in collaboration with CottonInfo or CRDC Commercialisation Manager at the outset of the project.
Proposed collaborations for the project and / or the collaborative networks of the project team. This criterion will be assessed on the demonstrated ability of the project personnel to form productive networks to build on national and international research already undertaken in related areas.
How this project is cost effective for the Australian cotton industry, including details of the resources being brought to the project. This criterion will be assessed on the cost effectiveness of this project including cash and in-kind commitments from the applicants and leverage through domestic or international linkages. Budget including descriptive text will also be assessed as part of this criterion.

Important to note:

• Applicants are expected to have read the CRDC Strategic Plan and Researchers Handbook before applying for funding.

• Where there are system limitations that prevent the ability to include graphs, pictures or background documents, attachments can be uploaded with your application. Please note you must abide by character limits where applicable. Attachments cannot be used as workarounds for the text fields in Fluxx, unless otherwise advised by CRDC.

• Some organisations require a two-step submission process. For these organisations, applications must be approved by the authorised Grantee Admin before they can be submitted to CRDC. Please allow your Grantee Admin sufficient time to action this before the EOI closing date.

• Applications may be submitted in Fluxx up to 11.59 pm on the close date, noting the above requirement (if applicable to your organisation).

• This EOI is not a guarantee of funding.

• If you are unsure of your organisation's requirements, or for any other queries, contact the Innovation Administration team via 02 6792 4088 or research@crdc.com.au

To apply, follow this process.